DOI:
10.1002/gps.5131

Document Version
Peer reviewed version

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The impact of military service on the mental health of older UK veterans: A qualitative study

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Word count: 4269

Funding statement: This research was supported by a grant from the Royal British Legion's Aged Veteran's Fund, grant number AVF-TRBL03 (NG)

Conflicts of interest: NG is a trustee of Forces in Mind Trust. This paper represents independent research part-funded by the National Institute for Health Research (NIHR) Biomedical Research Centre at South London and Maudsley NHS Foundation Trust and King's College London (SS). VW, HH, & KG have no conflicting interests to declare. The

views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

Data sharing statement: No additional data are available.

Ethics approval: The National Health Service Research Ethics Committee (17/LO/0077).

Word count: 3427

Abstract

Background: There may be ongoing psychological problems associated with military service later in life; yet as the elderly in the general population also suffer from mental health problems, whether such issues can be attributed to military service or are a feature of ageing remains unclear. This study aimed to explore veteran and non-veteran perceptions of the impact of their occupation on their psychological wellbeing later in life.

Methods: 25 veterans (≥65 years); 25 non-veterans (≥65 years); 10 veterans with diagnoses of mental health issues (≥65 years); and a close companion of all participants (≥18 years, spouse, child, close friend) were recruited. Using a qualitative approach, participants completed semi structured qualitative interviews with measures of psychological adjustment used to describe the sample.

Results: Veterans were found to experience higher levels of workplace stress and trauma exposure compared to non-veterans. When such challenges were positively appraised, veterans described increased confidence and resilience. Social support in response to occupational stress was central to veteran and non-veteran wellbeing, especially for those with mental health problems. Nonetheless, providing support was challenging for close companions, with many feeling overwhelmed and requiring additional guidance from the veteran's clinical care team.

Conclusions: The findings delineate the impact of occupation on the wellbeing of older veterans and non-veterans. The results illustrating the psychological support needs and formal

guidance desired by veterans, non-veterans and their families which could ultimately improve coping of both the individual and family.

Keywords: Mental health, military, veteran, occupation

Key points: i) Data were collected from older veterans, non-veterans and close companions about the impact of military service on wellbeing later in life. ii) Workplace stress and trauma exposure were more commonly reported by veterans, although, when challenges were appraised positively, veterans reported increased confidence and resilience. iii) Providing support to veterans with mental health problems was challenging for close companions and many felt overwhelmed and required additional guidance from the veteran's clinical care team.

The UK Armed Forces (UK AF) veteran population is increasingly elderly, with more than half of all veterans over the age of 65 [1,2]. Despite this, little research has examined the impact of military service on the mental health of older (i.e. ≥65 years) AF veterans. The limited research available indicates that military service may have adverse effects on mental health later in life [3,4]. At the same time, mental health problems are also common in older individuals regardless of AF service[5]. One study by Woodhead et al. suggests that older veterans who completed national service are no more likely to experience psychological disorders than those who did not participate in national service[6]. This may have contributed towards the dearth of research in older veterans and it remains unclear whether the mental health issues experienced by older veterans are associated with their military service or represent a feature of ageing.

Older veterans may be at increased risk of mental health problems compared to similarly aged non-veterans. A significant number of older UK AF veterans will have experienced operational service (e.g. Northern Ireland, Aden, Suez, Falklands) and may have long-term mental health difficulties, such as post-traumatic stress disorder (PTSD), as a consequence [7,8]. Alcohol-use disorders are one of the most prevalent mental health problems for working-age UK AF veterans, commonly attributed to military culture and combat exposure [9,10]. However, it is unclear whether older UK AF veterans also have alcohol consumption problems, although a recent review found alcohol use disorders were more prevalent in geriatric US veterans compared to the general population [4]. This is an important factor to consider as alcohol misuse may contribute towards Alzheimer's disease and other health problems [11,12]. Mental health difficulties can be a source of distress both for older veterans and their families, impacting negatively on their quality of life [13,14]. Nonetheless, in spite of the above challenges, military service may also have lasting benefits, such as

increased self-discipline, high levels of social support, and the improved ability to cope with adversity [15–17].

Given the potential impact of mental health disorders in older veterans, it is important to better understand how military service may affect mental health later in life. This would inform possible measures that the UK AF and veterans' services could utilise to diminish military-related health consequences and maximise the potential advantages for veterans. We conducted in-depth qualitative interviews with older veterans, older non-veterans, and a close companion (i.e. spouse, child, close friend) of each veteran/non-veteran participant with the aim of exploring the impact of occupation (i.e. military vs non-military) on mental health over the life course.

Method

The NHS Camden & King's Cross Research Ethics Committee (17/LO/0077) granted ethical approval for this study. Informed consent was obtained from all participants.

Participants

We recruited four sub-samples of participants: i) 25 older veterans (≥65 years, ≥5 years of regular UK AF service); ii) 10 older veterans with a self-reported diagnosis of either a current or past mental health disorder (≥65 years, ≥5 years of regular UK AF service); iii) 25 older non-veterans (≥65 years, ≥5 years of work in a non-military occupation); and iv) a close companion of all participants (≥18 years). The 25 veterans without self-reported mental disorder diagnoses and 25 non-veterans were age (+/- 5 years) and gender matched. Exclusion criteria for the study included: known participant brain damage or cognitive impairment; inability to speak English; or current self-injurious behaviour, or suicidal intent.

Procedure

Purposive sampling methods were utilised. Veteran/non-veterans were initially identified by the clinical care team following attendance at a variety of locations, including

community groups, GP surgeries, or mental health services. Clinicians obtained permission for patient contact details to be shared with the research team. Following patient agreement, researchers approached participants with additional study information. Participants could also self-refer to the study via study advertisements displayed at community groups, clinics and posted online. Companions were recruited by asking veteran/non-veterans if they had a spouse, child or close friend willing to participate with them. Veteran/non-veterans were asked to provide their companion's contact details and companions were subsequently contacted by the research team and sent a study information pack. All participants were recruited between March and December 2017.

A total of 86 eligible veteran/non-veteran participants were invited to take part in the study, 60 of which were recruited (69.8% recruitment rate). Individuals who did not participate were either not contactable, lacked capacity, or had no close companion to take part.

Measures

Psychological adjustment measures. Veteran/non-veterans completed several psychological measures prior to their interview, either online or by post.

Trauma exposure. In veteran/non-veterans, likely PTSD was assessed via the PTSD Checklist Civilian version (PCL-C[18]). A cut off score of ≥50 was used as case criteria for likely PTSD [19]. Veteran and non-veteran exposure to childhood adversity was measured using the Childhood Adversity Scale [20]. A composite score of adverse childhood events was used, with higher scores indicative of greater adversity (range 0-16). Veteran participants also completed the Combat Exposure Scale (CES [21]). The CES is a 7-item self-report scale assessing exposure to combat stressors. A summary CES score was calculated (range 0-41), with scores between 17-41 used to indicate moderate-high exposure.

Alcohol consumption. Veteran/non-veteran alcohol consumption was measured via the Alcohol Use Disorders Identification Test (AUDIT [22]). A score of 8-15 was used to indicate 'hazardous' drinking, while a score of 16 and above indicated 'heavy' consumption [22].

Common mental health disorders. The presence of common mental disorders was assessed via the General Health Questionnaire (GHQ-12 [23]). A cut off score of ≥4 was used to indicate caseness. Veterans, non-veterans and close companions completed the GHQ-12. Mental health was also measured using the 12-item Short Form Health Survey (SF-12 [24]), where a summary score was calculated (maximum possible score of 100) with higher scores indicating a better health state.

Qualitative interviews. The majority of participant interviews were conducted face-to-face (n=82), with 38 interviews conducted via telephone. Interview questions focused on participants perceptions of their career and the impact of their career on their mental health (see Supplementary File 1). Participants with self-reported diagnoses of mental health difficulties (n=10) were additionally asked about factors that contributed towards their issues, how they cope/coped with their mental health, and experiences of treatment. Close companions were asked for their perceptions of the impact of the veteran/non-veteran's career on their mental health, as well as companion's experiences of providing support to the veteran/non-veteran.

Interviews were 67 minutes long on average (SD = 0.02). All interviews were digitally recorded and transcribed verbatim. The qualitative interviews were completed by 120 participants and thematic saturation was achieved.

Data analysis

Qualitative analysis. All transcripts were entered into NVivo 11 (QSR International). Data were analysed using thematic analysis utilising the steps described by Braun and

Clark[24]: reading and re-reading the data, creating codes, searching for and developing early themes, and revising and refining themes. An inductive analytical approach was used with initial codes and themes proposed by the primary researcher (VW). Data collection and analysis took place simultaneously to allow emerging topics of interest to be investigated further in later interviews and to determine whether thematic saturation had been reached. To ensure reliability, all codes and themes were independently reviewed by authors VW and HH. Disagreements between authors were infrequent and were resolved following discussion and re-examination of the data. Peer debriefing was carried out on a monthly basis to further enhance credibility, where discussions were held about the emerging findings and feedback regarding data interpretation and analysis was sought from co-authors SAMS, KG, and NG[25]. A reflexive journal was kept throughout data collection and analysis by the primary researcher (VW) to recognise the influence of the researcher's prior experiences, thoughts and assumptions and avoid premature or biased interpretations of the data[25,26].

Quantitative analysis. Participant responses on the psychometric measures were used to describe the sample. Statistical analysis of responses was carried out using the statistical analysis software package SPSS (version 24). Fishers exact tests, t-tests and Kruskal-Wallis tests were used to identify statistically significant differences between groups, with *p* values <0.05 taken to indicate statistical significance.

Results

Descriptive information

Of the 25 veterans without a mental disorder history, 88.0% were male with a mean age of 74.6 years (SD 6.9; see Table 1). The sample of veterans with self-reported mental disorder diagnoses (n=10) had a mean age of 71.8 years (SD 6.5) and 70.0% were males. Self-reported diagnoses in the veteran mental health sample included: bipolar disorder,

PTSD, schizophrenia, substance misuse, eating disorders, and depression. As a whole, the combined sample of 35 veterans served in the AF between 5-40 years.

In the non-veteran sample (n=25), 88.0% were males with a mean age of 75.3 years (SD 7.5). Non-veteran professions included: engineers, small business owners, and public service workers (e.g. police, doctors, nurses).

Close companions (n=60) were largely spouses/partners (76.7%) or friends (13.3%) and were primarily female (85.0%). The mean age of close companions was 68.4 years (SD 10.6).

When the veterans without mental health diagnoses were directly compared to age and gender matched non-veterans, the only significant difference between these two groups was that veterans reported significantly higher rates of alcohol consumption (32.0% veterans reporting 'hazardous' AUDIT scores vs 4.0% non-veterans, p=.023; Table 2). Likely PTSD was observed in 20% of non-veterans compared to 4.0% of veterans. This difference was not statistically significant (p=.189) and may reflect that the trauma exposure detailed by the non-veteran sample was largely non-occupational (e.g. death of a child) and often had occurred within the last ten years. In contrast the index trauma reported by most veterans, both those who did and did not meet PTSD criteria, was primarily occupational-related and had occurred >30 years ago during their AF service. No other marked differences between groups were observed on the psychological symptom measures. No statistically significant differences in the questionnaire responses were found between veterans with self-reported mental health diagnoses and the sample of veterans without diagnoses and non-veterans (data not shown in table).

Qualitative results

Three overarching themes and seven sub-themes emerged from the data reflecting occupation-related effects on mental health over the life course. Anonymised participant comments are provided to illustrate the findings (Table 3).

Negative effects of occupation on mental health

Workplace trauma. Exposure to workplace trauma was uncommon in non-veterans but was described as a frequent occurrence for veterans in the qualitative interviews. Many veterans reported coping adaptively following AF service-related trauma. However, some reported maladaptive responses, including cognitive avoidance and substance use to manage their distress. Poor post-trauma adjustment was perceived to be due to insufficient military training, younger age at the time of the trauma, or prolonged exposure to several traumatic events without respite. In some cases, veterans' trauma-related symptoms reportedly worsened in recent years since retiring or leaving the AF, with symptoms including nightmares, hypervigilance, and difficulty regulating emotions. Notably, many of the veterans who reported such worsening symptoms in the qualitative interviews did not meet criteria for likely PTSD on the PLC-C.

High levels of occupational stress. Veterans reported more experiences of occupational stress during service, including extended separation from families, workplace bullying, and frequent routine performance assessments. This stress was thought to contribute towards psychological problems, including depression, anxiety, substance misuse, or self-harm. This distress was particularly pronounced in veterans with diagnosed mental health problems and they felt workplace stress contributed towards the development or worsening of their psychological difficulties. High levels of occupational stress were not reported to the same extent in non-veterans. When these stressors were present, it was primarily in high-pressure roles such as nurses and police officers. Bullying or discrimination were the most salient

stressful experiences in these non-military occupations, contributing to anxiety, depression and burn out.

Positive effects of occupation on mental health

Resilience. The majority of veterans reported that their military service was a largely positive experience which increased their confidence through skill development and the opportunity to manage junior colleagues. Exposure to some stressful situations in the AF (e.g. basic training, meeting regiment entry requirements), when appraised positively, were believed to improve veteran's ability to cope with stress. The improved ability to cope with stress was reportedly instrumental to having a successful military and, later, civilian career. Close companions reported that this contributed to veteran's ability to cope well with non-occupational stressors (e.g. death of family member, serious illness). For non-veterans, the ability to cope well with stressors was reportedly due to experiences of childhood adversity (e.g. WWII exposure) and a non-military career did not improve self-confidence or coping to the same extent as a military career.

Social support. Spouses and parents were often central sources of support for veteran/non-veterans in response to military and civilian workplace stressors, particularly for those experiencing mental health difficulties. Experiences of support, such as encouraging formal help-seeking, providing financial support, and listening, were considered helpful in coping with distress.

It could be challenging for family members to provide such support. For spouses, providing support to a distressed partner could be isolating and overwhelming as they often became the primary source of familial income, took on the majority of childcare and housework responsibilities, and had low relationship satisfaction. This was particularly pronounced in close companions of veterans with mental health diagnoses. In cases of serious mental illness, close companions reported that receiving more support from the veteran's

clinical care team would have been helpful, including: guidance about what symptoms to expect, advice on how to best support the veteran, and knowing who to contact for additional support during mental health crises.

Development of mental health problems.

Across the veterans with self-reported diagnoses of mental health difficulties and veterans and non-veterans meeting case criteria for likely mental health disorders, three patterns to developing mental health problems were observed.

Retirement. Most common across veteran and non-veteran samples was the development of mental health problems around retirement (UK State Pension age at time of data collection was 65 years), often following a stressful life event (e.g. death of a spouse, burglary, serious illness, etc.), a sense of advancing age or purposelessness on leaving the workforce. Mental health difficulties reportedly experienced were often depression or anxiety and treated by the participant's GP with medication as an outpatient. For veterans, reconnecting with other veterans via Breakfast Clubs or veteran associations was also felt to be an effective strategy to improve their wellbeing as they felt fellow veterans could better empathize with their circumstances.

Civilian workplace. The development of mental health problems was also felt to be due to experiences in (later) civilian roles as a result of bullying or discrimination. Veterans reported they had enjoyed and coped well with their earlier AF service, but the occupational challenges they faced in later civilian jobs led to depression or anxiety. While not causing the same degree of distress, feeling overwhelmed by workplace stressors was also reported in non-veterans meeting case criteria. As a result of their experiences, retirement from the workforce was experienced as a relief. Mental health difficulties in this instance were primarily treated by the local GP with medication as an outpatient.

Military-related trauma. Major in-service traumatic exposure occurring at the same time as non-AF related stress such as family breakdown or bereavement was identified as a cause of their difficulties by some of the veterans with self-reported mental health diagnoses. These veterans reported not enjoying their AF service as they felt they were treated insensitively or differently by colleagues because of their mental health problems. These veterans experienced many challenges finding and retaining civilian employment on leaving the AF, causing significant financial difficulties. Notably, retirement was felt to be a particularly positive experience for these veterans and their close companion as they no longer had to worry about holding a job and there was greater financial security via AF and old age pensions. Mental health difficulties in this group were treated via inpatient care and medication.

Discussion

Our aim was to explore the impact of military and non-military occupations on mental health later in life. Analysis of the qualitative data identified three core themes relating to perceptions of the impact of workplace practices on mental health later in life, including trauma exposure, occupational stress, and resilience.

A major theme related to adverse occupational experiences and how this detrimentally affected mental health. In veterans, experiences of AF occupation-related stress and trauma exposure were thought to contribute towards adjustment difficulties. High levels of occupational stress were also observed in non-veterans meeting case criteria for likely mental disorders. This finding is consistent with previous studies which found exposure to workplace stress precipitates mental health difficulties in previously healthy individuals [25]. Efforts on an individual level to promote adaptive coping and responses to workplace trauma (i.e. short-term alteration of duties, social support) may be beneficial for wellbeing both pre- and post-retirement [26]. For veterans with self-reported diagnoses of mental health problems, workplace

trauma coupled with non-AF related stressors and perceived poor treatment by colleagues reportedly contributed towards their mental health problems. Therefore, interventions which promote adaptive responses to occupational stress and facilitate supportive responses from colleagues may be particularly worthwhile when employees are experiencing concurrent personal stressors [27,28]. Notably, while veterans reported recent worsening of post-trauma psychological difficulties in the qualitative interview, no statistically significant differences in rates of likely PTSD were found between samples on the PCL-C. This may have implications for clinical practice in the assessment of psychological adjustment and highlights the need to consider the ways in which trauma symptoms are assessed in older samples.

A second key theme was the positive effects of workplace experiences on wellbeing, particularly resilience. While participating veterans reported higher levels of occupational trauma and stress, when such challenges were positively appraised veterans reported increased self-confidence and improved ability to cope with adversity. This improvement in resilience was not reported to the same degree in non-veterans, suggesting a specific advantage of military service. These findings are consistent with previous research that the majority of UK AF veterans cope well [29] and indicates that further investigations into how resilience is built in the AF and the differences in responses to stressors between those who do and do not cope well may be useful for future interventions.

Social support in response to occupational stress was found to be central to veteran and non-veteran wellbeing, especially for those with mental health difficulties. This is consistent with the broader literature on the importance of social support for positive psychological adjustment [30,31]. Nonetheless, providing support appeared challenging for close companions, particularly when veterans had significant mental health difficulties. Many companions felt isolated, overwhelmed and needed additional guidance from the veteran's

clinical care team. At present, veteran affiliated organisations and charities offering psychological services ensure that appropriate guidance is readily available to the carers of older veterans with dementia[1,2]. Comparatively little tailored support is accessible to carers of older veterans with non-dementia related psychological problems [32]. Our findings highlight the need for further support and guidance to be provided to caregivers of older individuals with other significant mental health problems [33,34]. For example, dedicated support groups, psychoeducation and respite care for carers of an older person with mental health problem may potentially be beneficial. Moreover, psychological disorder onset in early life compared to later in life is likely to have different implications for the individual as well as their caregiver. Our findings illustrate the continued need for longitudinal studies exploring mental health across the life course ensure that appropriate support and guidance is available to patients and their families.

A final theme encapsulated the three observed patterns of mental disorder development. Adverse experiences in civilian or AF roles with concurrent non-occupational stressors reportedly contributed to mental health problems. Similarly, retirement and perceived purposelessness also reportedly affected psychological wellbeing. Our finding that retirement and advancing old age was perceived to be related to poorer psychological wellbeing is consistent with previous studies that retirees are more likely to have mental health problems than their working peers [35]. As mental health problems, such as depression, in older adults are frequently underdiagnosed and undertreated [5], our results highlight the ongoing need for older persons mental health services (OPMHS) and veteran-affiliated organisations to continue to offer accessible support, such as psychoeducation and signposting, during this key transition in later life. Particularly for veterans, socialising with other veterans was considered beneficial for wellbeing, and potentially additional support by OPMHS and veteran organisations to facilitate such interactions may be beneficial.

It should also be noted that older veterans reported significantly more alcohol consumption than non-veterans, consistent with research in older and working-age UK personnel/veterans [36,37]. Murphy et al. [38] found that, compared to non-veterans, UK AF veterans referred for NHS alcohol support were more likely to be older, retired and male. It is possible that the high levels of alcohol consumption found in older veterans reflect a lasting effect of military employment. However, there is little research examining the long-term alcohol consumption patterns in UK AF veterans and our findings highlight the importance of longitudinal studies which examine veteran wellbeing long after leaving service.

A strength of the study was the large sample of veterans and non-veterans, ensuring thematic saturation. Furthermore, the inclusion of a sub-sample of veterans with diagnoses of mental disorders allowed for the incorporation of their unique experience. Among the weaknesses is the somewhat limited demographic diversity of the sample. Moreover, the inclusion of a sub-sample of non-veterans with self-reported mental disorder diagnoses would further our understanding of how occupation may affect wellbeing and care needs. The inclusion of close companions allowed for triangulation of our findings, although the experiences of veterans/non-veterans lacking such social support should be explored in future studies. Finally, the exclusion of participants with a cognitive impairment means we were unable to consider the potential impact of occupation on the development of dementia.

Conclusion

This study contributes to the literature in several ways. First, we identified several similar challenges faced by both veterans and non-veterans in later life due to their occupation, as well as distinct differences, both positive (i.e. resilience), and negative (i.e. military-related post-trauma symptoms). Second, the results suggest some veterans may need additional support in terms of ongoing post-trauma care and socialisation with other veterans. Finally, the findings highlight the challenges faced by family members in caring for those

experiencing work-related stress and mental health difficulties, illustrating the formal guidance desired by families which could ultimately improve coping of both the individual and family.

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Table 1

Participant demographic information

Demographic		Veterans with MH diagnosis n (%)	Veterans n (%)	Non-veterans n (%)	Close Companions n (%)
Age *M* (SD)		71.8 (6.5)	74.6 (6.9)	75.3 (7.5)	68.4 (10.6)
Gender	Male	7 (70.0)	22 (88.0)	22 (88.0)	9 (15.0)
	Female	3 (30.0)	3 (12.0)	3 (12.0)	51 (85.0)
Ethnicity	White British	10 (100.0)	25 (100.0)	24 (96.0)	59 (98.3)[a]
	Asian/Asian British	0 (0.0)	0 (0.0)	1 (4.0)	
Service Branch	Naval Services	5 (50.0)	7 (28.0)	n/a	n/a
	Army	4 (40.0)	14 (56.0)		
	RAF	1 (10.0)	4 (16.0)		
Service Length *M* (SD)		20.5 (12.8)	19.6 (8.4)	n/a	n/a
Non-veteran Professions	Doctor/nurse	n/a	n/a	3 (12.0)	n/a
	Managerial/office			6 (24.0)	
	Manual labour			5 (20.0)	

	Small business owner			3 (12.0)	
	Police			1 (4.0)	
	Engineer/scientist			4 (16.0)	
	Civil service			3 (12.0)	
CC Relationship	Spouse	7 (70.0)	16 (64.0)	23 (92.0)	n/a
	Child	1 (10.0)	3 (12.0)	1 (4.0)	
	Close friend	2 (20.0)	5 (20.0)	1 (4.0)	
	Niece/nephew	n/a	1 (4.0)	n/a	

Note. M= mean. SD= standard deviation. CC= close companion. CC Relationship = the close companion's relationship to the veteran or non-veteran. Veterans with MH diagnoses = veterans with a self-reported diagnosis of a mental disorder. Service length = number of years in military service. a= this demographic information was missing for one participant.

Table 2

Participant scores on psychometric measures

Outcome	Veterans with MH diagnoses % (n=10)	Veteran % (n=25)	Non-veteran % (n=25)	Veteran vs non-veteran *p* values
Common mental disorder caseness (n)	30.0 (n=3)	12.0 (n=3)	36.0 (n=9)	.095
Potentially 'hazardous' alcohol consumption (n)	30.0 (n=3)	32.0 (n=8)	4.0 (n=1)	.023
Potentially 'harmful' alcohol consumption (n)	10.0 (n=1)	0 (n=0)	0 (n=0)	n/a
Probable PTSD (n)	20.0 (n=2)	4.0 (n=1)	20.0 (n=5)	.189
Moderate- heavy combat exposure	20.0 (n=2)	20.0 (n=5)	n/a	n/a
Mental health score *M*(SD)	56.4 (3.0)	58.1 (2.6)	57.3 (2.9)	.272
Number of adverse childhood events				.078
0-1	20.0 (n=2)	28.0 (n=7)	16.0 (n=4)	
2-3	30.0 (n=3)	36.0 (n=9)	52.0 (n=13)	
4-5	40.0 (n=4)	12.0 (n=3)	20.0 (n=5)	
6+	10.0 (n=1)	24.0 (n=6)	8.0 (n=2)	

Note. Veterans with MH diagnoses = veterans with a self-reported past or current diagnosis of mental health disorders. M = mean. SD = standard deviation. Common mental disorder caseness = GHQ-12 score of 4 or more. Potentially 'hazardous' drinking = AUDIT score of 8-15. Potentially 'harmful' drinking = AUDIT score of 16 or more. Probable PTSD = PCL-C score of 50 or more. Moderate – heavy combat exposure = CES score between 17-41. Mental health score = mean score on SF-12 mental health component. Number of adverse childhood events = number of adverse childhood experiences reported via CAS. Veteran vs non-veteran p values = refers to whether differences between veteran (n=25) and non-veteran group (n=25) were statistically significant ($p<.05$), examined via Fishers exact or t-tests. Data missing for one veteran case on the AUDIT and one non-veteran case on the CAS.

Table 3

Themes and sub-themes following thematic analysis

Themes and sub-themes	Findings	Verbatim quotes
Negative effects of occupation on mental health		
Workplace trauma	Exposure to workplace trauma more common in veterans. Poorer coping due to insufficient military training, younger age at trauma, or prolonged exposure. Some veterans' trauma-related symptoms had worsened in recent years.	'I used to lose my bottle a bit…because you always get scared at sort of the middle of the night and some horrible situation. You can put up with it a few times, you couldn't put up with it an awful lot of the time. Well I couldn't anyhow.' (Veteran, no mental disorder diagnosis)
High levels of occupational stress	Veterans reported more experiences of occupational stress. Bullying and discrimination were the most common workplace stressors in non-veterans. Occupational stress was thought to lead to psychological problems in both groups.	'The bullying started from senior admin telling you that you mustn't sit beside [patients]…you mustn't do this [or that] … You know, it was quite upsetting…[and] the stress brought on shingles, I had shingles. And that was because of the stress of the job. And depression as well' (Non-veteran)
Positive effects of occupation on mental health		
Resilience	Veterans developed resilience, self-confidence, and social skills during AF career. Ability to cope with stress was attributed to life experiences in non-veterans.	'I've just got on with things really…. it may fall back on my military career…Being in the military you had to have a certain amount of discipline, you knew you had to do things… that sort of attitude developed a positive defence to dealing with anything that came up, whatever problems, you deal with them.' (Veteran, no mental disorder diagnosis)
Social support	Familial support is important for coping with workplace stressors for veterans and non-veterans. Close companions could find	'He couldn't cope…so we had to completely switch roles. I went back to work full-time and he looked after the baby...But he was at the stage where he would leave the tap running or turn the gas

	providing support to veterans with mental health problems isolating and overwhelming.	on and leave it on and not realise he's done it.' (Veteran Close Companion, mental disorder diagnosis)
Development of mental health problems		
Retirement	In veterans and non-veterans, mental health problems developed around retirement, often following a stressful event, a sense of advancing age or purposelessness on leaving the workforce.	'I got a depression when I was about sixty…I think that was the fear of getting old… and approaching my sixtieth birthday and thinking, God, then it's going to be seventy, then it's going to be, you know. And sort of fearful of the future, if you like.' (Veteran, mental disorder diagnosis)
Civilian workplace	Mental health problems reportedly developed due to experiences in civilian roles as a result of workplace bullying or discrimination.	'I used to take things on board maybe a bit too seriously at times. If the job didn't go right, I would be a bit down and depressed about it. I used to worry too much about everything.' (Non-veteran)
Military-related trauma	Mental health difficulties developed during AF service because of trauma exposure which co-occurred with non-AF-related stressful events. Only found in veterans with self-reported mental health diagnoses.	'I flew down to the Falkland Islands on the same day as [my mother] died…. after a couple of months down there, I just cracked up… But all they were concerned about was getting me back to work…And I was forced to work, feeling very ill, in charge of a whacking great big depot. And it just did me in. I've never been the same ever since.' (Veteran, mental disorder diagnosis)

Note: AF = Armed Forces. All participants have been assigned a pseudonym.